Eating Fish Keeps Heart and Arteries Healthy? Symposium Experts Ask for More Research

Among those attending the conference on the Health Effects of Polyunsaturated Fatty Acids in Seafoods are (from I to r): Dr. K. Frank Austen, chairman, Department of Rheumatology and Immunology, Brigham and Women's Hospital; Dr. Norman Salem Jr., chief, Section of Analytical Chemistry, Laboratory of Clinical Studies, National Institute of Alcoholism and Alcohol Abuse; Dr. Alexander Leaf, chairman, Ridley Watts professor of preventive medicine and professor of medicine, Harvard Medical School; Dr. William E.M. Lands, professor and head, department of biological chemistry, University of Illinois; Dr. Wyngaarden, NIH Director; Dr. Simopoulos, conference cochairman, and NCC chairman; Dr. Scott M. Grundy, director, Center for Human Nutrition, University of Texas Health Science Center; Lee Weddig, executive vice president, National Fisheries Institute; and Dr. Robert R. Kifer, conference cochairman, acting director, Office of Utilization Research, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, Department of Commerce.

Fish has for a long time been referred to as "brain food." In the 1960s, it was discovered that brain cells contained high levels of docosahexaenoic acid (DHA), a polyunsaturated fatty acid which can be found in fish oils obtained from salmon, mackerel, trout, and menhaden.

In 1978, scientists reported that the low death rate from coronary heart disease among Eskimos of Greenland may be explained by the high consumption of fish, averaging 400 grams per day, which is rich in omega-3 fatty acids.

To learn more about the health effects of polyunsaturated fatty acids found in seafoods in the American diet and to develop a research agenda, a conference on the Health Effects of Polyunsaturated Fatty Acids in Seafoods was cosponsored in June by the NIH Nutrition Coordinating Committee (NCC), the National Marine Fisheries Service of the Department of Commerce, and the National Fisheries Institute.

Dr. Artemis P. Simopoulos, NCC chairman, and, William Gordon, Assistant Administrator for Fisheries, Department of Commerce, National Oceanic and Atmospheric Administration, opened the conference. Virginia Knauer, Special Advisor to the President for Consumer Affairs, the White House, and Dr. James B. Wyngaarden, NIH Director, were featured speakers.

The conference brought together analytical chemists, molecular biologists, pharmacologists, cardiologists, immunologists from NIH and around the world who presented reviews and papers on current research. Among topics discussed were:

• The impact of omega-3 fatty acids on eicosanoid formation
• Thrombosis and atherosclerosis
• Lipoproteins and atherosclerosis
• Immunology and inflammation
• Docosahexaenoic acid: membrane function and metabolism

Comprehensive Research

Over the past 10 years, research on the effects of omega-3 on prostaglandin metabolism, immune function, lipoproteins, and vision has expanded.

Clinical investigations already in progress and in the stage of data analysis with appropriate biochemical assessment of various cell populations involve rheumatoid arthritis, bronchial asthma, systemic lupus erythematosus, and hypertriglyceridemia.

Noted U.S.-China Doctor To Speak at NIH Aug. 13

Dr. Ma Hai De (George Hatem), probably the most famous American living in China and generally credited with having been the major force in the eradication of venereal disease in the People's Republic of China, will lecture at NIH on Aug. 13 as a guest of the Fogarty International Center.

His lecture, "History of the Eradication of Venereal Diseases in the People's Republic of China," will be delivered at 3:30 p.m. at the Lister Hill Auditorium (Bldg. 38A).

Dr. Hatem, a former chief of staff at the Institute of Dermatology and Venereology, Chinese Academy of Medical Sciences, Beijing, was born George Hatem of Lebanese parents in Buffalo, N.Y., in 1910.

Dr. Ma (Hatem) was educated at the University of North Carolina (which at its centennial presented him its Distinguished Service Award), at the American University of Beirut, and at the University of Geneva.

He has lived in China since 1933. Half a century ago he joined Mao Tse Tung, Chou En Lai, and many others who were destined to become the leaders of the New China on the long march to Yenan. This experience led George Hatem to the decision to spend the rest of his life helping the Chinese people achieve better health and a better life. Thus emerged his Chinese name, Ma Hai De, which means "Virtue from Overseas."

Dr. Ma, consultant to the Ministry of Health in Beijing in recent years, continues with his current main medical interest: alleviating and eliminating the problem of leprosy in China.
Animal Rights Activists Invade NINCDS Offices; No Arrests or Injuries During Four-Day Sit-In

A group of about 100 animal rights activists, mostly members of People for the Ethical Treatment of Animals, invaded offices of the National Institute of Neurological and Communicative Disorders and Stroke on the morning of July 15 and staged a 4-day sit-in demonstration protesting research involving non-human primates.

The demonstrators, unfurling banners and brandishing placards, occupied the office of Dr. Murray Goldstein, NINCDS Director, and several adjacent offices on the 8th floor of bldg. 31. They eventually blocked the main entrance of the building and picketed in front of the doors of the A-wing, but were mainly confined to the 8th floor by NIH Security.

No arrests were made and no injuries were incurred.

The demonstrators were protesting the NIH decision to provide interim support of the Head Injury Clinical Research Center at the University of Pennsylvania, pending completion of the Office for Protection From Research Risks’ investigation of allegations that the institution failed to comply with the PHS policy concerning the use of animals in research.

On Thursday, July 18, HHS Secretary Margaret M. Heckler in conjunction with NIH Director Dr. James B. Wyngaarden ordered the suspension of funding for the brain-trauma experiments with non-human primates at the University after reviewing a preliminary report from NIH investigators examining work at the Pennsylvania clinic.

Dr. Wyngaarden later issued a statement saying that the preliminary report indicated “material failure to comply with the Public Health Service policy for the care and use of laboratory animals.” Dr. Wyngaarden said he would decide whether further action by NIH is appropriate after the university responds to the report.

The NIH investigation included a review of more than 60 hours of videotapes by Federal and outside experts for compliance with policies governing humane care and use of laboratory animals and interviews with scientists in charge of the studies.

Other aspects of the investigation involved consultation with experts from both government and private sectors, visits to the laboratory to assess facilities and procedures, and reviews of research protocols and other records.

The demonstrators ended their protest after hearing the statements by Secretary Heckler and Dr. Wyngaarden.
Health’s Angels Celebrate 10th Anniversary

To celebrate a sterling 10-year track record, the NIH Health’s Angels Jogging Club is launching a program of events designed for the novice runner as well as the marathoner.

Starting this summer, Health’s Angels members are invited to participate in weekly group runs every Friday at noon and attend monthly running clinics beginning Aug. 14. In September, the club will hold a gala 10th Anniversary Run and Party and initiate a long-distance marathon training program.

On Aug. 3 and 4, several Health’s Angels teams will honor a longstanding tradition by competing in the 24-Hour Relay Race at Fort Meade, Md. In previous years, NIH teams have brought home silver and bronze medals for their high total mileage in this arduous event.

According to club president Marc Lippman, the caliber of Health’s Angels teams in various races over the years has established NIH as a local running mecca. Last fall, Health’s Angels eclipsed a strong field of teams from other Federal departments, the Congress, and the national press to win the first-place trophy at the Nike Capitol Challenge Race. NIH runners have consistently dominated the annual Parklawn Classic and other local races, and NIH athletes have made impressive showings at area triathlons.

However, Lippman emphasizes, the Health’s Angels club is an organization for NIH runners at all levels of ability. “Running for fitness in the midst of the world’s premier health research establishment is a unique experience,” he says. “The NIH is a very special community, and having our own running club enables us to meet one another, stay motivated, and share our commitment to our sport.”

Health’s Angels’ activities are designed to guide members in all aspects of running: improving form and endurance, establishing a regular regimen, selecting shoes; and—most important—having fun.

The monthly clinics, featuring guest speakers on selected topics, will take place on the second Wednesday of each month. The first clinic, set for Wednesday, Aug. 14, in Cont. Rm. 2 of Bldg. 31A, will be given by Lynn Gerber, head of Rehabilitative Medicine, Clinical Center, on “Coping with Athletic Injuries.” The weekly group runs take off at noon sharp every Friday in front of Bldg. 1 and return 40 minutes later.

The club also publishes a quarterly newsletter which features training tips, race results, news about individual members, and schedules of local races (starting in September). Health’s Angels members can obtain local race applications directly through the club. For the first time in 10 years, the newsletter now has a name.

Editor Jerry Moore recently announced that the winner of a “Name-the-Newsletter” contest is “The Health’s Angels Harrier,” the brainchild of Tom Roach of the Division of Financial Management, who receives a $25 gift certificate from Racquet & Jog for his entry.

Over the years, Moore has found that, once a Health’s Angel, always a Health’s Angel. Members who have left NIH for positions around the country and abroad still correspond to keep up on club news. “I think that, in addition to enhancing physical fitness and projecting an image of excellence, the club has played an essential role in nurturing a sense of community at NIH,” says Moore. “The kinds of status distinctions that exist in the office or in the lab disappear out on the running path, and this has enabled workers from different segments of NIH to get to know one another and to learn what other people on campus are doing.”

Looking to the future, the Health’s Angels are now working on plans to celebrate the NIH Centennial in 1987 with a historic 1,000-mile relay run from the birthplace of NIH on Staten Island to the Bethesda campus.

Any NIH employee who runs or who would like to start is urged to join the club. Membership forms can be obtained at the R&W Activities Desk in Building 31, the Fitness Center, or by calling Lynda Bennett at 496-1848.

The National Heart, Lung, and Blood Institute has won the Golden Screen Award for three television public service announcements for the 1984/85 National High Blood Pressure Program’s mass media campaign.

The three messages, chosen from 143 entrants, were aimed at hypertensives aware of their problem to help encourage their adherence to therapy. The messages were addressed to those who have stopped treatment or follow treatment partially or sporadically.

The Golden Screen Competitions, sponsored annually by the National Association of Government Communicators, recognize excellence in the field of broadcast communications throughout government. Established in 1976, the association is devoted to improving communications between Federal, State and local governments and their constituencies.

NIH’s National High Blood Pressure Education Program was established in 1972 with the goal of reducing death and disability from high blood pressure through better control and treatment. The program’s mass media campaigns have been an important element for the past 10 years: with male hypertension their most recent target.

The history of the National High Blood Pressure Education Program mass media cam-

NHLBI HBP Announcements

Win Golden Screen Award

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The history of the National High Blood Pressure Education Program mass media cam-

Tempor ary Door for NIH Library 

Starting August 1

The entrance to the NIH Library in Bldg. 10 will be closed for 2 weeks starting Aug. 1. Access to the library will be through a temporary door replacing one of the windows overlooking the patio on the south side of the library.

The patio and temporary door are reached from the covered area just outside the south entrance to Bldg. 10.

This temporary arrangement is necessitated by Clinical Center renovations of the corridor outside the library entrance.

During this period, library staff will examine all briefcases, parcels, etc., carried by persons leaving through the temporary door.
Dr. Richard L. Irwin Retires From NINCDS

His main regret about retiring, Dr. Irwin says, is that he will not be in direct contact with the future of neuroscience.

"The opportunities for research advancement in the treatment, prevention, and abolition of neurological diseases and disorders are the greatest now that they have ever been," Dr. Irwin says. "When we came here in the early 1950s, we knew we were embarking on a long, tedious, difficult path. We've taken a few steps on that path, but there are lots of larger, more important steps to be taken."

Dr. Irwin says he was asked to take on the job. "NIH was my first real job, but actually, it's been like two careers: one as an administrator, the other as a scientist."

Dr. Irwin has served as associate director for laboratories in the NINCDS Intramural Research Program since 1970. A pharmacologist, he began work at the Institute (then the National Institute of Neurological Diseases and Blindness) as chief of the Section on Applied Pharmacology, medical neurology branch.

This first career, as a bench scientist, Dr. Irwin says, was his first love, what he was really trained to do. But over the years as a need had developed for an administrator who knew the Institute and understood its science mission, Dr. Irwin was asked to take on the job.

"What I've devoted myself to in this second career is making sure that the potential for new neuroscience knowledge is achieved," Dr. Irwin says. "It's been exciting to be involved in all of it, not just the part I was doing myself."

Dr. Irwin remembers working with a small group of scientists to develop the Institute's first research laboratories and clinics. His pharmacology studies in those early years included developing drugs for the treatment of myasthenia gravis.

Shortly after he moved from the laboratory into administration, one of his daughters developed multiple sclerosis and his work in helping the Institute understand and conquer neurological disease took on a new, more personal orientation. His greatest satisfaction and accomplishment at the NINCDS, Dr. Irwin says, has been encouraging progress in the neurosciences.

"The key to the whole thing is the quality of the people," Dr. Irwin says. "It's their intellect and their commitment to creating new knowledge that will ultimately solve the neurological disease problems of our world."
**Division of Safety Will Hold Corridor Utilization Survey**

During the month of August, the Fire Prevention and Control Branch and the Occupational Safety and Health Branch, Division of Safety, will conduct a corridor use survey. The purpose of this effort is to eliminate unsafe and unnecessary obstructions in the corridors and to provide employees with a safe and adequate means of building evacuation.

NIH Fire Department surveyors will perform the actual surveys. Safety and health consultants will be located at tables in each building according to the schedule listed below to answer questions and help solve problems on relocating equipment inappropriately stored in the corridor.

Assistant surveyors will issue NIH Form 1824, Authorized Corridor Use Stickers, for all equipment authorized for storage in the corridors, according to the Corridor Utilization Policy.

The survey schedule is as follows:

<table>
<thead>
<tr>
<th>DATE</th>
<th>TIME</th>
<th>BLDG., WING</th>
<th>BLDG. 10, FLOOR NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug. 1</td>
<td>8:30 am-12 Noon</td>
<td>2</td>
<td>10, 14th Floor</td>
</tr>
<tr>
<td>Aug. 1</td>
<td>1 pm-3 pm</td>
<td>1</td>
<td>10, 13th Floor</td>
</tr>
<tr>
<td>Aug. 2</td>
<td>8:30 am-12 Noon</td>
<td>3</td>
<td>10, 12th Floor</td>
</tr>
<tr>
<td>Aug. 2</td>
<td>1 pm-3 pm</td>
<td>4</td>
<td>10, 11th Floor</td>
</tr>
<tr>
<td>Aug. 5</td>
<td>8:30 am-12 Noon</td>
<td>5</td>
<td>10, 10th Floor</td>
</tr>
<tr>
<td>Aug. 5</td>
<td>1 pm-3 pm</td>
<td>5</td>
<td>10, 9th Floor</td>
</tr>
<tr>
<td>Aug. 6</td>
<td>8:30 am-12 Noon</td>
<td>6</td>
<td>10, 8th Floor</td>
</tr>
<tr>
<td>Aug. 6</td>
<td>1 pm-3 pm</td>
<td>6A</td>
<td>10, 7th Floor</td>
</tr>
<tr>
<td>Aug. 7</td>
<td>8:30 am-12 Noon</td>
<td>7</td>
<td>10, 6th Floor</td>
</tr>
<tr>
<td>Aug. 7</td>
<td>1 pm-3 pm</td>
<td>9</td>
<td>10, 5th Floor</td>
</tr>
<tr>
<td>Aug. 8</td>
<td>8:30 am-12 Noon</td>
<td>12, A&amp;B</td>
<td>10, 4th Floor</td>
</tr>
<tr>
<td>Aug. 8</td>
<td>1 pm-3 pm</td>
<td>11</td>
<td>10, 3rd Floor</td>
</tr>
<tr>
<td>Aug. 9</td>
<td>8:30 am-12 Noon</td>
<td>13</td>
<td>10, 2nd Floor</td>
</tr>
<tr>
<td>Aug. 9</td>
<td>1 pm-3 pm</td>
<td>15A</td>
<td>10, 1st Floor</td>
</tr>
<tr>
<td>Aug. 12</td>
<td>8:30 am-12 Noon</td>
<td>21</td>
<td>B1, B2, B3</td>
</tr>
<tr>
<td>Aug. 13</td>
<td>8:30 am-12 Noon</td>
<td>16, 16A</td>
<td>ACRF, 12th &amp; 13th</td>
</tr>
<tr>
<td>Aug. 14</td>
<td>8:30 am-9 am</td>
<td>14 Group</td>
<td>ACRF, 11th</td>
</tr>
<tr>
<td>Aug. 14</td>
<td>9 am-12 Noon</td>
<td>18</td>
<td>ACRF, 10 &amp; 9th</td>
</tr>
<tr>
<td>Aug. 14</td>
<td>1 pm-2 pm</td>
<td>28, 28A</td>
<td>ACRF, 8th Floor</td>
</tr>
<tr>
<td>Aug. 15</td>
<td>8:30 am-12 Noon</td>
<td>22</td>
<td>ACRF, 8th Floor</td>
</tr>
<tr>
<td>Aug. 16</td>
<td>8:30 am-12 Noon</td>
<td>29</td>
<td>ACRF, 7th &amp; 6th Floors</td>
</tr>
<tr>
<td>Aug. 16</td>
<td>1 pm-5 pm</td>
<td>29A</td>
<td>ACRF, 5th Floor</td>
</tr>
<tr>
<td>Aug. 19</td>
<td>8:30 am-12 Noon</td>
<td>30</td>
<td>ACRF, 4th Floor</td>
</tr>
<tr>
<td>Aug. 20</td>
<td>8:30 am-12 Noon</td>
<td>30</td>
<td>ACRF, 3rd Floor</td>
</tr>
<tr>
<td>Aug. 21</td>
<td>8:30 am-12 Noon</td>
<td>31, A</td>
<td>ACRF, 2nd Floor</td>
</tr>
<tr>
<td>Aug. 21</td>
<td>1 pm-3 pm</td>
<td>31, B</td>
<td>ACRF, 1st Floor</td>
</tr>
<tr>
<td>Aug. 22</td>
<td>8:30 am-12 Noon</td>
<td>31, A,B,C</td>
<td>ACRF, B-1</td>
</tr>
<tr>
<td>Aug. 23</td>
<td>8:30 am-12 Noon</td>
<td>38</td>
<td>10, A (surgery)</td>
</tr>
<tr>
<td>Aug. 26</td>
<td>8:30 am-12 Noon</td>
<td>37</td>
<td>10, A (surgery)</td>
</tr>
<tr>
<td>Aug. 27</td>
<td>8:30 am-12 Noon</td>
<td>37</td>
<td>10, A (surgery)</td>
</tr>
<tr>
<td>Aug. 28</td>
<td>8:30 am-12 Noon</td>
<td>38</td>
<td>10, A (surgery)</td>
</tr>
<tr>
<td>Aug. 29</td>
<td>8:30 am-12 Noon</td>
<td>38A</td>
<td>10, A (surgery)</td>
</tr>
<tr>
<td>Aug. 30</td>
<td>8:30 am-12 Noon</td>
<td>41</td>
<td>10, A (surgery)</td>
</tr>
<tr>
<td>Aug. 31</td>
<td>1 pm-3 pm</td>
<td>41</td>
<td>10, A (surgery)</td>
</tr>
</tbody>
</table>

The extension of the NIH Savings Bond Campaign through Aug. 31 is cause for celebration. At the National Institute of Dental Research, Irma Burke (l) and Marcia Einbinder (r) of the Laboratory of Developmental Biology and Anomalies, display the “Buy Bonds” cake that underscored the theme of their laboratory bond rally held July 3. The interest rate for savings bonds is now 9.49 percent. To take advantage of this current rate and see your money grow, contact your BID canvasser and sign up for the payroll savings plan.

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**New Procedure Analyzes Faulty Bone Formation**

A new procedure has been developed to mechanically evaluate osteogenesis imperfecta (OI) bone. OI is an inherited disease characterized by fragile bones that fracture easily.

Many people with the disease have multiple fractures over their lifetimes. In fact, some children are born with fractures; others have their first fracture several months or years after birth.

Dr. Peter Frasca and colleagues at Thomas Jefferson University in Philadelphia used a micro-mechanical testing machine that applied a bending stress to OI and normal bone fragments.

The researchers observed a clear difference between OI bone and normal bone. Normal bone is about 50 percent collagen and about 50 percent calcium. Collagen for flexibility and calcium for strength. The researchers found that the OI problem lies in defective collagen, the most abundant protein in the body. In OI bone, collagen fibers are malformed and misoriented.

Because OI bone is so fragile, the most common treatment is to reinforce it with rods to keep the bone straight. Dr. Frasca said, “Because evaluation of OI bones is now possible, clinicians can now assess how much force can be applied to the bone, and utilize the best method to strengthen it.”

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**Renaissance Tickets Available**

R&W has tickets available for the Maryland Renaissance Festival at their new location on Crownsville Rd., just 5 minutes west of Annapolis.

The Ninth Annual Renaissance Festival begins on Saturday, Aug. 24 and continues through Sunday, Sept. 29.

Tickets can be purchased at the R&W Activities Desk, Bldg. 31, Rm. B1W30 or the Westwood Bldg., R&W Gift Shop.
The NIH Record  
July 30, 1985  

NIA Celebrates 10 Year Anniversary  
By Claire McCullough  

The range of topics covered was a testimonial to the Institute's commitment to a multidisciplinary approach to aging research. Guest lecturers presented the latest findings in each of their respective areas and identified future directions of research on aging.

History of Aging Research

Dr. James Birren, dean of the Andrus Gerontology Center at the University of Southern California, opened the symposium with a brief history of scientific research and developments in aging.

"Science as we know it today, with its emphasis on objectivity and the collection and analysis of data, is a mere 150 years old," said Dr. Birren. "Since the time of Ben Franklin's musings about the role of electricity in sustaining life, we have increased life expectancy from an average of 35 to 74 years."

Interest in aging research is reflected in the published literature which has doubled over the last 10 years. With this interest evolved a new approach to the study of illness, with the Framingham Heart Study confirming the role of behavioral and social factors in disease. Such long-term studies enable investigators to follow the progress of individuals over their lifetime related to health and disease.

The Baltimore Longitudinal Study on Aging

One of the most significant longitudinal studies in the field of aging is NIA's Baltimore Longitudinal Study on Aging. Begun 28 years ago under the direction of Dr. Nathan Shock, this study includes over 1,000 volunteers who report to Baltimore for a comprehensive biannual examination. In reviewing the NIA's history, Dr. Richard Greulich, NIA Scientific Director, discussed some BLSA findings on what constitutes normal human aging. Among these findings:

- Older people's ability to metabolize glucose declines, a finding which has led to more accurate diagnosis of diabetes mellitus in the aged.
- Many physical functions—blood pH and electrolyte balance for example—remain stable with age, as does personality.
- Certain cardiac functions remain constant in the healthy aging adult (one of the most significant findings).
- Perhaps the most profound insight gained from the BLSA, according to Dr. Greulich, is the realization that individuals become more unique as they grow older. It is this individual variability among the aged that poses a unique challenge to investigators.

Behavioral and Social Aspects of Aging

The idea of variability between individuals was a recurrent theme of the symposium. Dr. K. Warner Schaie, professor of human development and psychology, Pennsylvania State University, looked at the variability of intelligences among older people and the outstanding stereotype that intelligence declines with age. Recent studies prove that among healthy individuals intellectual growth does not level off until about age 30, does not decline significantly in most individuals until after age 80, and that all persons do not show a noteworthy decline even at the oldest ages.

In Dr. Schaie's opinion, the common causes of mental decline are lack of a stimulating environment, a disengaged lifestyle, inflexible attitude, and lack of intellectual stimulation—all factors that are modifiable.

Dr. Robert Kahn, professor of psychology, University of Michigan, promoted the notion of devising strategies to delay or reverse aging. By preserving abilities in old age, we can reverse the negative stereotypes associated with aging and maintain the elderly in productive roles. He said the definition of productivity should include domestic work and voluntary activities such as providing health care or child care, which can easily translate to a market value.

Dr. Maddox spoke of the multidisciplinary nature of aging research and its importance in the practice of medicine. "A proper view of gerontology," said Dr. Maddox, "requires a recognition of the synergy between biomedical and behavioral components of aging as they take place in the broad social context."

Reflections of a Former NIA Director

NIA's first director, Dr. Robert N. Butler, now chairman of the department of geriatric and adult development at Mt. Sinai Medical Center, expressed his pleasure at the progress being made under Dr. Williams' leadership in NIA's Teaching Nursing Homes and the Alzheimer Disease Research Centers. Dr. Butler viewed the establishment of the Laboratory of Neuroscience at NIA's Clinical Center as a first step toward a heightened awareness of the importance of geriatric medical research.

He added: "We're reaching the point where in the year 2020—just around the corner—over..."
20 percent of our population will be over age 65. With additional major breakthroughs in cardiovascular disease or cancer, this figure will be even higher.” These population projections underscore the need for an increase in geriatric research and more programs to develop leaders in medical practice and academia.

Geriatric Research

Dr. John W. Rowe, associate professor of the division of aging at Harvard Medical School, who has played a leading role in developing geriatric research in the United States, reflected on the improvement in the amount and quality of research in this area. He sees a new era of geriatricians, concerned with maintaining the healthy years of independence, and a new emphasis on prevention and health promotion previously reserved only for younger patients. He also advocates the multidisciplinary approach of the “geriatric assessment unit,” which requires treatment of the “total” person by a team of skilled professionals from medicine, nursing, social work, and other disciplines.

One particular area where science is making progress is against Alzheimer disease, an area in which the NIA has directed considerable time and resources. Promising news on accomplishments in dementia research was reported by Dr. Robert Katzman, professor and chair of the department of neuroscience at the University of California, San Diego, and a leader in the field of neurology of aging. Increased awareness of dementia as a major public health concern has led to an exponential growth in research over the past 5 to 6 years.

“Funding has increased from $5 million in 1978 to $43 million today, but it is a drop in the bucket compared to the $25 billion spent for the care of Alzheimer victims,” he pointed out. Behavioral investigators are also beginning to look at the impact on families and caregivers of Alzheimer disease patients.

Dr. Katzman provided a historical overview of Alzheimer disease, and details of milestones achieved over the last two decades. Among the significant findings: discovery of the loss of large neurons (nerve cells) in the cerebral cortex; studies of a brain deficit related to lack of particular enzymes needed for the synthesis of neurotransmitters—chemical messengers; the insolubility of paired helical (twisted) filaments (PHF), and abnormal protein structures found in Alzheimer brains. NIA is currently supporting Alzheimer Disease Research Centers to advance understanding of this disease and improve the care and treatment of Alzheimer victims.

The scientific symposium concluded with a discussion of one of the newest and most exciting areas of basic research in aging, molecular biology and medical genetics. Among the most important fundamental questions being asked by molecular biologists are: “Why are cells of the germ line (reproductive cells) immortal and somatic (non-reproductive) cells mortal? What is the genetic basis for variation in aging and in lifespan among and between species?”

According to Dr. George Martin, professor of pathology and genomics, University of Washington, Seattle, major areas of current biological thought in gerontology are related to a number of disciplines. Questions pertinent to investigations in neurobiology, embryology, oncology, and evolutionary biology all involve common questions relating to basic cellular and subcellular mechanisms and processes.

Significant Advances Predicted

While new tools used by the molecular biologists may yield answers to these questions, much of current research is still in the descriptive stage. Dr. Martin predicts that significant advances will come from basic research on genetic processes.

He went on to discuss the potential of different types of models for the study of aging. Among these were a number of single cell and other lower organisms which are useful for the study of enzyme synthesis and free radical activity in relation to lifespan.

Higher organisms including various rodent species lend themselves to experimental alteration. These biological models may one day shed light on the role of chromosomal aberrations in diseases like Werner’s syndrome (premature aging) or familial strains of Alzheimer disease.

Dr. Martin conveyed his enthusiasm about the medicine of the future and the importance of phenotypic engineering, treating diseases that are the result of genetic defects. He speculated about possible medical interventions arising from studies on organ and cell transplantation to compensate for immune and neurological deficiencies.

The New Human Genetics Revised Version Available

The New Human Genetics, an updated version of a booklet first published in 1976, is now available from the National Institute of General Medical Sciences’ Office of Research Reports. The main emphasis in the new brochure is on recent advances in the study of genetics, including recombinant DNA technology and gene mapping.

The booklet describes, in lay language, how these techniques are helping scientists search for genes responsible for a number of genetic diseases such as sickle-cell anemia, cystic fibrosis and Huntington’s disease. Gene therapy, a potential treatment for genetic disorders, and an outgrowth of these advances is discussed. The booklet also describes oncogenes, which play a role in the development of cancer. The New Human Genetics was originally written and has been revised by Maya Pines.

Many of the researchers mentioned in the brochure worked with NIGMS support. Ten scientists funded by the Institute have won Nobel Prizes since 1970 for their pioneering work on the structure and function of genetic material, the action of hormones and the structure of the cell.

Copies Available

Since NIGMS’ main mission is the support of basic biological research, the booklet deals with the implications of basic research advances for increasing our understanding of genetic principles. Knowledge of these principles contributes directly to the progress of research on specific diseases supported by the other institutes of NIH.

For copies of The New Human Genetics contact:

NIGMS
Office of Research Reports
Bldg. 31, Rm. 4A52
(301) 496-7301

Former NIA Director Dr. Robert Butler shares a candid moment with Florence Mahoney, an advocate of aging research who was instrumental in the Institute’s establishment.
VISITING SCIENTISTS

7/1 Dr. Stephen P. Bainbriddle, United Kingdom. Sponsor: Dr. Robert Voeller, Laboratory of Genetics, NIEHS, Research Triangle Park, NC.

7/1 Dr. Noel J. Buckley, United Kingdom. Sponsor: Dr. Michael Brownstein, Laboratory of Cell Biology, NIMH, Bldg. 36, Rm. A337.

7/1 Dr. George E. Jaskiw, Canada. Sponsor: Dr. Richard J. Wyatt, Neuropsychiatry Branch, NIMH, Bldg. 10, Rm. 4N206.

7/1 Dr. Norman J. Lassam, Canada. Sponsor: Dr. Robert C. Young, Laboratory of Medicinal Chemistry.

7/1 Dr. Michael Brownstein, Laboratory of Cell Biology, NINCDS, Bldg. 10, Rm. 5814.

7/1 Dr. Lajos Z. Szabo, Hungary. Sponsor: Dr. Josef Pilsner, Macromolecular Chemistry, NIA, GRC, Baltimore, Md.

7/5 Dr. Bishara J. Freij, Israel. Sponsor: Dr. Norman Saltzman, Laboratory of Biological Chemistry, NIH, Bldg. 36, Rm. 3A12.

7/1 Dr. Rajeev Singh, India. Sponsor: Dr. Norman Saltzman, Laboratory of Biochemistry, NIH, Bldg. 36, Rm. 3B13.

7/7 Dr. Sylvah Dhib-Jalbut, Lebanon. Sponsor: Dr. Diane E. McFarlin, Neuroimmunology Branch, NINCDS, Bldg. 10, Rm. 5B14.

7/7 Dr. Yohsuke Minatogawa, Japan. Sponsor: Dr. Seymour Kaufman, Laboratory of Neurochemistry, NIH, Bldg. 36, Rm. 33E19.

7/7 Dr. Mary M. Mouradian, Syria. Sponsor: Dr. Thomas Chase, Experimental Therapeutics Branch, NINCDS, Bldg. 10, Rm. 5C103.

7/7 Dr. Peter K. Ohman, Sweden. Sponsor: Dr. Harry Keiser, Hypertension Endocrine Branch, NHLBI, Bldg. 10, Rm. 8C103.

7/7 Dr. Dov Soffer, Israel. Sponsor: Dr. Henry deF. Webster, Laboratory of Experimental Neuropathology, NINCDS, Bldg. 36, Rm. 4B17.

7/7 Dr. Soong Bing-wen, China. Sponsor: Dr. John Barranger, Developmental and Metabolic Neurology Branch, NINCDS, Bldg. 10, Rm. 4N248.

7/7 Dr. Megan Sykes, Canada. Sponsor: Dr. David H. Sachs, Immunology Branch, NCI, Bldg. 10, Rm. 4B17.

7/9 Dr. Ernesta Palombo, Italy. Sponsor: Dr. Louis Sokoloff, Laboratory of Cerebral Metabolism, NIMH, Bldg. 36, Rm. 1A27.

7/11 Dr. Susanne Joost, Germany. Sponsor: Dr. Illana Atwater, Laboratory of Cell Biology and Genetics, NIAID, Bldg. 4, Rm. B1135.

7/12 Dr. Osamu Tsutsumi, Japan. Sponsor: Dr. Takamichi Oka, Laboratory of Biochemistry and Metabolism, NIAID, Bldg. 10, Rm. 9K15.

7/15 Dr. Avraham Shitzer, Israel. Sponsor: Dr. Ronald Levin, Biomedical Engineering and Instrumentation Branch, DRS, Bldg. 13, Rm. 3W13.

R&W August Hiking Schedule

Saturday, Aug. 17. A 6-mile hike mostly along the Appalachian Trail to enjoy the views from Annapolis and Black Rocks and South Mountain. Meet at 8:30 at NIH or 9 a.m. at People's Drug, Conn. Ave., and McKinley St., N.W., Washington, D.C. For information call Elizabeth Weisburger, 496-6272 or 530-4042.

Saturday, Aug. 24. 7-to-6-mile hike around the Spotsylvania Battlefield in Va. Meet at NIH at 9 a.m. For information call Elizabeth Weisburger, 496-6272 or 530-4042.

OD Personnel Officer Fred Walker Arrested Under False Pretenses in P.G. County

Have you ever thought you might like to get even with your boss, friend, or coworker? Well, some OD personnel got that opportunity and had their personnel officer Fred Walker arrested.

"It was all for a good cause," they are quick to say.

It seems that the American Cancer Society, Maryland Division, along with the Prince George's County Sheriff's Department and Radio Station 95, sponsored a Jail-a-Thon to earn money for the Cancer Society.

On his way to work one morning, Tony Kaminski, a colleague of Fred's, heard the radio announcer say, "For a $25 donation, you could have someone arrested in P.G. County.

The first hitch was to lure Fred into P.G. County so he could be arrested. To accomplish this, they got together and planned a luncheon at Ledo's, a restaurant in the county.

"It was Tony's treat," Fred cited as the main reason he went along with the luncheon idea. Tony and his wife, Sue, Sue Heidel, Colleen Barros, along with Fred, arrived at Ledo's on schedule. Before they had a chance to order, a policeman came up and issued the warrant for Fred's arrest, reading the charges placed against him.

These were trumped-up charges, of course, by Tony and the group. Some of them were impersonating a personnel officer, impersonating a golfer, unauthorized possession and use of a tennis racket, and impersonating a human being.

Fred thought this was just another joke of Tony's so he went along with it without concern until the officer placed the handcuffs on him and started to lead him to the squad car. The policeman said he was taking him to Landover Mall and explained a little bit about the Jail-a-Thon.

At the mall, Fred was brought before the judge who was sitting on a platform in the center of the mall with a sound system attached. The charges were read over the loudspeaker and Fred was asked how he pleaded.

The response of "nolo contendere" (no contest) surprised the judge.

Not particularly liking his answer, the judge (she) doubled his fine to $400 in pledges to the Cancer Society.

The Jail-a-Thon ran for a week from June 17-21 and during the week 38 arrests were made and $13,161 pledged. According to Shawn Ballantine, a representative of the Maryland Division of the American Cancer Society, "It was a success."

The NIH Record

July 30, 1985
Two New Fogarty Scholars-in-Residence Arrive at NIH

Dr. Teruo Matsuura, professor of synthetic chemistry, faculty of engineering, Kyoto University, Japan, arrived July 3 to begin his first term as a Fogarty Scholar-in-Residence.

Prof. Matsuura was educated in Osaka, Japan, where he graduated from Osaka University with a B.Sc. in chemistry, and in 1956 a D.Sc. From 1957 to 1958 he was a visiting scientist in the Clinical Endocrinology Branch of NIH under Dr. Hans J. Cahnman. The following year he became a Postdoctoral Fellow at the Massachusetts Institute of Technology. Following a visit to Japan in 1959, he was associated with the chemistry department, faculty of science, Osaka City University, becoming assistant professor in 1960. In 1963 he was appointed professor in the department of synthetic chemistry, faculty of engineering, Kyoto University.

Prof. Matsuura is well known for his pioneering work in photochemistry. He has made significant contributions to our knowledge of the oxidation reactions of heterocyclic systems and, in particular, oxidation of indoles and purine derivatives related to the nucleic acids. Prof. Matsuura's work on photo-cross-linking between nucleic acids and proteins caused by ultraviolet light has provided important insights into the mechanism of the photodynamic effect. His work has led to better understanding of reactions catalyzed by oxygenases, especially those involving singlet oxygen or oxygen complexes of hemoproteins.

During his scholarship, Prof. Matsuura will be associated with the Clinical Endocrinology Branch, NIHDKK, where his sponsor is Dr. Hans J. Cahnman. He can be reached in Bldg. 16 (Stone House), Rm. 302, 496-2027.

Dr. Ernesto Carafoh, professor of biochemistry in the Swiss Federal Institute of Technology, Zurich, Switzerland, began his first term as a Fogarty Scholar-in-Residence, June 20.

Prof. Carafoh was born in Segregno, Italy, and studied in the Lyceum of Udine before entering the Faculty of Medicine of Modena in 1951. He graduated in 1957, at which time he was awarded the Fondazione Giacomo Prize for his thesis. In 1958 he was an Internal Postdoctoral Fellow of NIH at Johns Hopkins University in the department of physiological chemistry. In 1973 he became professor of biochemistry at ETH in Zurich and was appointed chairman in 1978.

Prof. Carafoh's work has been concerned with ion transport systems and energetics. His studies, which started at Johns Hopkins University, established the existence of different pathways for calcium uptake and release from mitochondria. His early interest in mitochondria has led to his recent work on calcium transport systems in plasma membranes and the endoplasmic reticulum.

Prof. Carafoh is sponsored by Dr. Claude Klee, chief of the Macromolecular Interactions Section, Laboratory of Biochemistry, NCI. He can be reached at the Stone House, 496-1760.

Three New Members Named To NIADDK Advisory Council

Three new members have been appointed to 4-year terms on the National Arthritis, Diabetes, and Digestive and Kidney Diseases Advisory Council. The new members are Drs. Roland W. Moskowitz and Donald F. Steiner and Ms. Maureen E. Reagan. The council, established in 1959 by Congress, is composed of 18 members who are prominent in science, medicine, and public affairs. The council members review applications for research support and make recommendations concerning funding, following initial peer review for scientific merit and feasibility.

The National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases awards grants to scientists at universities, hospitals, and other medical institutions throughout the country for basic and clinical research. NIADDK's research interests include arthritis, bone disorders, skin diseases, endocrinology, metabolic disorders, digestive diseases, nutrition, kidney and urinary tract diseases, and blood diseases.

Dr. Moskowitz is professor of medicine at Case Western Reserve University in Cleveland and director of its Multipurpose Arthritis Center. He is widely recognized for his contributions to arthritis research, which have been recognized by many honors throughout his career, including The Lily Award and The Banting Medal from the American Diabetes Association, and The David Rumbough Award from the Juvenile Diabetes Foundation.

Ms. Reagan is chief executive officer of Sell Overseas America in Woodland Hills, Calif., an active volunteer in the fight against arthritis, and supporter of the Arthritis Foundation.

Dr. Steiner is professor of biochemistry and medicine at the University of Chicago. He is internationally known for his contributions to diabetes research, which have been recognized by many honors throughout his career, including The Lily Award and The Banting Medal from the American Diabetes Association, and The David Rumbough Award from the Juvenile Diabetes Foundation.

Mr. Boehning is a member of the Tipppecanoe County Association and served as a director and as treasurer in 1963 and president in 1978, and a member of the Indiana State Bar Association.

Richard Boehning Named To NHLBI Advisory Council

Richard A. Boehning, chairman of the Board of Directors, American Heart Association, and attorney in the law firm of Bennett, Boehning, Paynter and Clary in Lafayette, Ind., was recently appointed to the Advisory Council of the National Heart, Lung, and Blood Institute. As a council member, Mr. Boehning will take part in the evaluation of the Institute's cardiovascular, blood, and lung diseases programs and will make recommendations to the Institute and NIH Director concerning directions, goals and priorities of these programs.

His term runs through October 1987.

Mr. Boehning is a member of the Tipppecanoe County Association and was a director and as treasurer in 1963 and president in 1978, and a member of the Indiana State Bar Association.

The NIH Record Page 9
Dr. Florence Haseltine Named New Director, Center for Population Research, NICHD

Dr. Florence P. Haseltine has recently been named director of the Center for Population Research in NICHD.

Dr. Haseltine comes to NICHD from the Yale University School of Medicine where she was associate professor in the Department of Obstetrics, Gynecology and Pediatrics. She is a board certified obstetrician and gynecologist and an expert in reproductive endocrinology.

As director of the Center for Population Research, Dr. Haseltine will oversee the support of population research in the biomedical, demographic and behavioral sciences.

The $105 million CPR research program focuses on the reproductive sciences relevant to the problems of human fertility and infertility: the development of safe, effective and acceptable methods for fertility regulation; the evaluation of the benefits and risks of currently used methods of contraception; and demographic and behavioral sciences research on the causes and consequences of population structure, changes and trends such as delayed childbearing.

Dr. Haseltine replaces Dr. Philip Corfman who had been director of the Center since its inception in 1968. Dr. Corfman left in September of 1984 to accept an assignment as senior medical officer in the Special Programme of Research in Human Reproduction of the World Health Organization in Geneva.

Dr. Haseltine, who holds a doctorate in biophysics from the Massachusetts Institute of Technology and a medical degree from the Albert Einstein College of Medicine, had been at Yale since 1976 after completing her residency at Boston Hospital for Women and her internship at the University of Pennsylvania at Philadelphia.

At Yale, Dr. Haseltine directed a program of basic reproductive endocrinology research directed toward patients with genetic defects in their reproductive function. In 1983, she took a one year sabbatical to study as a special student in the Yale University School of Organization and Management and this past year, she worked in Israel at the Weizmann Institute.

Dr. Haseltine has a long-standing interest in the issue of women's status in the health care system. She served on the Committee of the Status of Women at both Harvard University and at Yale, and she also was a member of the Yale University Committee on the Education of Women.

Dr. Haseltine also has a deep professional interest in the mechanisms of sex differentiation. She has been the principal investigator on several Federal grants on that topic, and also on grants from the American Cancer Society relating to atypical growth in gonadal tumor formation.

Her extensive background in reproductive biology is reflected in nearly 50 papers or reviews she has published in the past 8 years. She is also the author of the book Woman Doctor and of chapters in several textbooks and other professional publications.

Dr. Haseltine is a member of the Baker-Channing Society, the New Haven Obstetrics and Gynecology Society, the Connecticut Endocrine Society, the American Society of Human Genetics, the American Fertility Society, the Society of Gynecological Investigation, the American College of Obstetricians and Gynecologists, and the Society for the Study of Reproduction.

New Method Measures Vertebral Fractures in Osteoporosis

Crush fractures of the vertebrae (the bony segments of the spine) are a common feature of osteoporosis, a brittle bone disorder that affects 15 to 20 million Americans, mostly postmenopausal women. To properly treat this type of fracture, a reliable method to determine incidence and progress of fracture is essential.

Dr. E. Y. Chao and B. Lawrence Riggs at the Mayo Clinic in Rochester, Minn. have developed a new X-ray method to measure and monitor geometric shape changes in the vertebrae of osteoporotic patients.

The researchers studied seven age-matched normals and four postmenopausal osteoporotic patients to determine the accuracy and reproducibility of the technique. Sixty-eight patients were also analyzed who had been treated with fluoride and calcium, an experimental therapy.

The information was then fed into a digital computer for calculation of vertebral configuration and future comparison.

Dr. Chao said that one advantage of this technique is its ability to duplicate the patient's X-ray analysis position during each evaluation. He added, "It is important to quantitate the exact nature of the tissue as it changes so that you can relate the change to the progression of the disease and the efficacy of the treatment."

Mathematical Model Used To Study Hand Function

A computerized mathematical model of the hand has been designed by Dr. K. N. An and colleagues at the Mayo Clinic, Rochester, Minn. With this model, researchers can use the computer to analyze the function of normal hands as well as hands deformed by arthritis or injury or repaired by surgery.

The model of the hand, including the thumb and fingers, was based on measurements of anatomic structures in human cadaver hands and postures and forces in the fingers and thumb during hand function.

These measurements were then fed into a computer to develop a model and to determine muscle and joint forces in different simulated conditions. For example, by using this computer model, muscle and joint forces in hands with disease conditions such as peripheral nerve injury, tendon laceration, and rheumatoid deformity, can be analyzed.

Researchers have also used the computer to analyze surgical treatments such as tendon transfer and joint fusion to restore or improve function in diseased hands.

At present, researchers are focusing on the tissue and its movements, which depend on shape of joint surface, ligament constraints, and muscle contraction. The aim is to compare designs for joint surface replacement and to understand effects of ligament relocation to joint contracture, which can result from rheumatoid arthritis.

FISH

(Continued from Page 1)

A critical mass of data has been generated from research in the U.S. and abroad that requires careful review and attention.

Program participants emphasized the importance of separating the theories about the possible effects of a fish oil enriched diet in preventing human disease from the use of a fish oil enriched diet for purposes of therapeutic intervention in pathobiologic disease states. These conditions involve different dose and time requirements and require different assessments at the biochemical and cellular levels.

To date, there is no appreciable evidence of toxicity from attempts to intervene in pathobiologic states or from administering to normal individuals substantial doses of n-3 fatty acids. Age-related prevention preparations in the form of Max-EPA or esterified EPA.

Studies in normal individuals with the preserved active ingredients of a fish oil enriched diet are critical to the ultimate analysis of the effects of a fish oil enriched diet to individuals with pathobiologic states.

The joint USDA/NIH pamphlet "Nutrition at Your Health: Dietary Guidelines for Americans," recommends eating a variety of foods, including selections of meat, poultry, fish, or eggs. If one were to follow the dietary guidelines, which are based on moderation, one would eat between two and four fish meals a week. The average current consumption of fish is one meal a week. Data presented at the conference by the Department of Commerce indicated that there is plenty of fish available for every American to have at least two fish meals a week.
Walter L. Stroman Dies; Retired Library Technician

Walter L. Stroman, a recently retired library technician at the NIH Library, died July 12 of cancer after a brief illness. Mr. Stroman was 55 years old.

He had retired June 10 after 30 years of service at NIH, 28 of them in the NIH Library, DRS.

As her of the NINCDS Laboratory of Central Nervous System Studies received the Special Achievement Award, two Public Health Service Commissioned Officer Commendation Medals, and six NIH Merit Awards.

Nearly 100 NINCDS employees were recognized for special accomplishments during the Institute's Annual Awards Ceremony in June. Highlighting the event were presentations by Institute Director Dr. Murray Goldstein of an Equal Employment Opportunity Special Achievement Award, two Public Health Service Commissioned Officer Commendation Medals, and six NIH Merit Awards.

During annual awards ceremony, NINCDS Director Dr. Murray Goldstein (l) presents PHS Commendation Medal to James D. Bona.

Drs. Clarence J. Gibbs Jr., and David M. Asher of the NINCDS Laboratory of Central Nervous System Studies received the Special EEO Award in recognition of their efforts to open the world of biomedical research to promising women and minority students. During the past 13 years, Dr. Gibbs, deputy director of the laboratory, and Dr. Asher, a medical officer, have overseen the training of more than 125 women and minority students in summer jobs and part-time positions in the lab. Approximately one-third of these students have gone on to medical school, careers in academic medicine, or research activities—some in the neurosciences.

PHS Commendation Medals were awarded to Dr. Edward J. Ginns of the NINCDS Developmental and Medical Neurology Branch and James D. Bona of the NINCDS Surgical Neurology Branch. Dr. Ginns was cited for his research achievements in the biochemistry and molecular genetics of lysosomal storage disorders. Mr. Bona was honored for his work in determining the usefulness of different drugs for treating brain tumors.

NINCDS Merit Awards—given to a select few employees in recognition of special achievement—were presented to Dr. Maryellen C. Franko, Michael P. Sulima, and N. La-Donna Tavel, Laboratory of Central Nervous System Studies; Kathryn L. Phillips, Extramural Activities Program; Dr. William H. Pitlick, Convulsive Disorder Program; and Margaret-H. Smiley, Medical Neurology Branch.

In his new post, Dr. Freese will continue his responsibilities as chief of the NINCDS Laboratory of Molecular Biology, a position he has held since coming to NINCDS in 1962.

Dr. Freese, internationally known in the field of the molecular mechanisms of mutations, is the discoverer of two types of point mutations, “transitions” and “transversions.” Last year, in recognition of his life-long scientific achievements, Dr. Freese received the Humboldt Award, one of West Germany's highest awards for a foreign scientist. Dr. Freese is a member of several professional societies, including the American Society of Biological Chemists and the Biophysical Society. From 1973 to 1974, he was president of the Environmental Mutagen Society, which makes scientists and the public aware of the long-range effects of mutagenic and teratogenic compounds used in the environment.
Benign Enlargement of Prostate: More Research Needed to Understand Prevalence in Post-50 Males

"Prostate enlargement, (benign prostatic hyperplasia) is an epidemic disease that affects men over the age of 50," said Dr. Gary Striker, director, Division of Kidney, Urologic and Hematologic Diseases, NIADDK. "We need new research ideas and greater public information about BPH," he said during the opening session of the 2nd NIADDK Symposium on the Study of Benign Prostatic Hyperplasia held recently in Rockville, Md.

More than 130 urologists, endocrinologists, pathologists, developmental biologists and other research and clinical scientists met for the symposium which was sponsored by the NIADDK's Division of Kidney, Urologic and Hematologic Diseases.

BPH is characterized by excessive growth of certain parts of the prostate, a gland that surrounds the urethra, the tube leading from the bladder to the exterior of the body. "BPH is the most common benign tumor in males over 50," said symposium chairman Dr. Donald Coffey, professor of oncology, pharmacology, and urology, Johns Hopkins University School of Medicine, Baltimore.

Enlargement of the prostate can cause urinary obstruction, making it difficult to urinate. There is evidence that this disease starts early in adult life (3rd to 4th decade) and its occurrence increases with age. Over 50 percent of males between 51 and 60 may have pathological findings of BPH and BPH is the number one cause of surgery on U.S. males over the age of 65.

The total yearly cost for medical care and surgery currently exceeds $1.5 billion, a figure which will grow as the number of aged in the U.S. grows. Thus, the BPH problem will increase both in cost and need for medical services.

The symposium focused on research in two general areas: the regulation of normal growth and development of the prostate in humans and in animal models including the hormonal, developmental and cellular aspects of BPH and the diagnosis and clinical management of obstructive symptoms due to BPH.

Dr. Gerald Cunha, University of California, San Francisco, presented data which showed that embryonic prostatic tissue can differentiate and grow after being removed from its normal, utriclexial environment if the appropriate prostatic stroma (another type of tissue) was also transferred and placed nearby.

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Tissue growth may also depend on whether the cells are programmed by hormones early in life. This has been called "imprinting" and may determine whether in later life, prostatic growth continues, resulting in BPH.

According to Dr. Cunha, "This phenomenon needs to be explored in greater depth." Further research on imprinting using animal models may yield insights on the role stem cells play in inducing abnormal growth of the prostate.

Knowledge gained from growth studies may provide clues as to the use of currently available drugs or the development of new drugs to prevent human BPH.

Data presented by Dr. Michael Mawhiney, West Virginia Medical Center, Morgantown, on the histopathological aspects of BPH revealed that collagen may facilitate growth of the prostate. Collagen, a structural protein of connective tissue that provides both strength and form, is the supporting tissue for the cells of the prostate.

Endocrinologists presented evidence that hormonal factors may either facilitate or prevent growth of prostatic tissue. They showed that hormonal messages influence growth in specific prostate cells with those in the stroma the most responsive.

Referring to results presented on studies of abnormal growth of the prostate, Dr. Coffey raised the question, "Is BPH an embryonic reawakening, or is it the removal of an inhibitory brake system?" and urged that both avenues be studied.

Clinical researchers found that fluid accounted for 28 percent of the enlargement of the prostate in BPH. According to Dr. Frank Hinman Jr., University of California, San Francisco, "If we had a way of knowing where or how this fluid is being made and where it is going, we might have a very immediate tool that could reduce prostate size."

Others presented detailed physiologic methods to determine the amount, type and potential reversibility of urinary obstruction due to extensive prostatic growth.

"The state of the art in BPH research presented at this conference has removed the blinder and expanded our minds to look at new directions for research," said Dr. Saul Boyarsky, professor of genitourinary surgery, Washington University, St. Louis, Mo. □

Farmer's Market at NIH

R&W is once again sponsoring a "Farmer's Market" at NIH, on Tuesdays, in parking lot 41B, beginning at 3:30 p.m.

Fresh fruits and vegetables from local Montgomery County farmers will be sold. □

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Dr. Andrew Peacock Dies; Devised DNA Method

Dr. Andrew C. Peacock, 63, chief of the Protein Section in NCI's Laboratory of Molecular Carcinogenesis, died of cancer June 26 at the Clinical Center. He had worked for the National Cancer Institute since 1949.

In the 1960s, Dr. Peacock and two others developed the materials and methods for the process known as polyacrylamide gel electrophoresis (PAGE) used to separate nucleic acids. The technique is considered one of the methodological foundations of modern molecular biology. Electrophoresis is used to separate and identify molecules of DNA and protein.

In conjunction with Michael Seidman, also of the Laboratory of Molecular Carcinogenesis, Dr. Peacock had recently worked on a technique called two-dimensional gel electrophoresis for the analysis of DNA.

Enzymes that cleave DNA are added directly to electrophoretic gels so that distinct fragments of the DNA molecule from complex genes, including human genes, can be separated and studied.

Research will use this new method, which is more reliable than previous procedures, to study the internal sequence of genes, do gene mapping, and identify various gene fragments that are diagnostic of genetic diseases.

Dr. Peacock received his B.S., M.S., and Ph.D. degrees from the Massachusetts Institute of Technology after serving in the U.S. Air Force. His interests were classical literature, participating in a variety of community activities, and he also enjoyed computer programming.

Dr. Peacock had received the DHEW Superior Service Honor Award and was a member of the American Association of Cancer Research and the American Society of Biological Chemists.

NIMH Seeks Volunteers

The Department of Psychobiology, NIMH, is seeking healthy male/female normal volunteers between the ages of 21 and 65 years for one or both of the following:

- completion of a short questionnaire.
- 2 6-hour blood studies.

Accepted volunteers will be paid.

For further information call Paul Gaist, 496-6981. □

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